

Application No.: 09/438,392
Amendment Dated 5 February 2004
Reply to Office Action of 5 November 2003

REMARKS

The specification has been amended at page 1, lines 21-31 to set forth a list of selectable markers found in Yoder and Goldsborough (1994), which had been incorporated by reference in the application (see page 6, lines 9-12). The specification has been amended at page 4, lines 16-19 to set forth knotted genes found in Lincoln et al. (1994) and Chuck et al. (1996), each of which had been incorporated by reference in the application (see page 6, lines 9-12). A copy of each of these references is attached for the convenience of the Examiner. A Verified Statement concerning this amendatory material accompanies this Amendment.

Claims 68 and 80 have been amended to delete reference to a screenable marker.

Claims 69 and 81 have been amended to insert the full name of the genes for the *ipt* and *CKII* genes. Support for this amendment can be found at page 2 for *ipt* and page 4 in conjunction with Kakimoto (1996) referenced therein for the *CKII* gene, a reference which has been incorporated by reference in the application (see page 6, lines 9-12). A copy of this reference is attached for the convenience of the Examiner.

Claims 73 and 82 have been amended to delete reference to a gene that causes anthocyanin production.

Claims 74 and 83 have been canceled.

It is submitted that these amendments do not constitute new matter and their entry is requested.

The Examiner rejected claims 69, 74 and 79-83 under 35 U.S.C. § 112, second paragraph for being indefinite. Claims 69 and 81 have been amended to set forth the full names of the *ipt* and *CKII* genes as suggested by the Examiner. Claims 74 and 83 have been canceled. Claim 79 has been amended as suggested by the Examiner.

In view of the amendments to the claims and the above remarks, it is submitted that the claims are definite. Withdrawal of this rejection is requested.

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The Examiner rejected claims 68, 69, 71-74 and 80-83 under 35 U.S.C. § 112, first paragraph for lack of written description. The Examiner contends that the specification does not provide a written description for genes encoding selectable or screenable markers, members of the knotted family, genes that promote shoot regeneration and development, genes that promote somatic embryogenesis, genes for antibiotic or herbicide resistance and genes that cause anthocyanin production. It is submitted that the specification contains a written description of the claimed invention.

First, Applicants have deleted the terms "screenable marker" and "genes that cause anthocyanin production" from the claims.

Second, Applicants have amended the specification to include material from references which had been incorporated by reference. Specifically, the specification has been amended to include a list of selectable markers, including antibiotic resistance genes and herbicide resistance genes. The specification has also been amended to included a list of genes of the knotted family.

Third, Applicants submit that they have satisfied the written description requirement and have reasonably conveyed to one of ordinary skill in the art that Applicants had possession of the claimed invention at the time the application was filed. A seminal case with respect to written description is *Regents of the University of California v. Eli Lilly and Co.*, 43 USPQ2d 1398 (Fed. Cir.1997). Applicants note that *Eli Lilly* specifically states that the application of the holding in the case is very fact-specific. Specifically, Applicants note that the court in *Eli Lilly* stated,

Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "**such descriptive means as words, structures, figures, diagrams, formulas, etc.,** that set forth the claimed invention." Lockwood, 107 F.3d at 1572, 41 USPQ2d at 1966.

Eli Lilly, 43 U.S.P.Q.2d at 1404 (emphasis added). Thus, **words** alone are sufficient to describe the invention. The present specification clearly uses the claimed limitations and thus describes them by words, which meets the requirements of *Eli Lilly*.

In addition, these terms, i.e., **words**, are well known in the art and skilled artisans know what these **words** encompass as detailed above. This fact is evidenced by the publications cited in the specification. Furthermore, Applicants note that a multitude of patents use the same terms, especially terms such as “selectable marker,” “herbicide resistance gene” and “antibiotic resistance gene,” which patents thus likewise use such **words** to provide a description of their inventions. For example, the prior art uses the words “DNA binding domain” and “ligand binding domain” in claiming and disclosing the invention.

Furthermore, the specification provides numerous examples of the genera claimed. Specifically, Applicants have provided numerous examples of selectable markers, including *nptII*, *Ble*, *cat*, *aphIV*, SPT, *aacC3*, *aacC4*, *bar*, EPSP, *bxn*, *psbA*, *tfda*, *sul*, *csr1-1*, *dhfr*, DHPS, AK *tdc*; *hpf* (page 37); *kn1* of maize, *KNAT1*, *KNAT2*, *kn1*-like genes of maize, *kn1*-like gene of rice and *kn1*-like gene of soybean (all on page 4); *ipt* (page 2); *CKI1* (page 4); *luciferase* (page 16); *Lec1* (page 33); and *SERK* (page 34). Applicants have provided numerous examples of antibiotic resistance genes, including *nptII*, *Ble*, *cat*, *aphIV*, SPT, *aacC3*, *aacC4* (all on page 1) and *hpf* (page 37). Applicants have provided numerous examples of herbicide resistance genes, including *bar*, EPSP, *bxn*, *psbA*, *tfda*, *sul* and *csr1-1* (all on page 1). Applicants have provided numerous examples of members of the knotted family, including *kn1* of maize, *KNAT1*, *KNAT2*, *kn1*-like genes of maize, *kn1*-like gene of rice and *kn1*-like gene of soybean (all on page 4). Applicants have provided numerous examples of genes that promote shoot regeneration and development, including *ipt* (page 2), *CKI1* (page 4) and members of the knotted family, including *kn1* of maize, *KNAT1*, *KNAT2*, *kn1*-like genes of maize, *kn1*-like gene of rice and *kn1*-like gene of soybean (all on page 4). Finally, Applicants have provided examples of genes that promote somatic embryogenesis, including *Lec1* (page 33); and *SERK* (page 34). These numerous examples of the genera claimed are further evidence that Applicants were in possession of the claimed invention for the genera: selectable markers, members of the knotted family, genes that promote shoot regeneration and development, genes that promote somatic

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embryogenesis and genes for antibiotic or herbicide resistance. Since Applicants have described their invention using “**such descriptive means as words**,” it is submitted that the specification clearly demonstrates that the inventors were in possession of the claimed invention. *Eli Lilly*. Thus, it is submitted that the specification provides an adequate written description of the invention.

In addition, according to the Written Description Guidelines (*Guidelines for Examination of Patent Applications Under 35 U.S.C. § 112, ¶ 1 Written Description Requirement*, 66 Fed. Reg. 1099 (June 5, 2001)), a patent specification must describe the invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. Possession of the claimed invention is shown by describing the claimed invention with all of its limitations, using such descriptive means as **words**, structures, figures, diagrams, and formulas that fully set forth the claimed invention (emphasis added). Possession may be shown in a variety of ways, including description of an actual reduction to practice. An adequate written description may be shown by any description of sufficient, relevant identifying characteristics so long as a person skilled in the art would recognize that the inventor had possession of the claimed invention. It is submitted that the present specification contains several examples of actual reduction to practice with different selectable markers and further contains a description of sufficient, relevant identifying characteristics such that a person skilled in the art recognizes that Applicants had possession of the claimed invention. Thus, it is submitted that the specification provides an adequate written description of the invention.

In view of the amendments to the specification and claims and the above remarks, it is submitted that the specification contains a written description of the claimed invention. Withdrawal of this rejection is requested.

In view of the above amendments and remarks, in conjunction with the remarks made in the previous amendment, it is believed that the claims satisfy the requirements of the patent statutes and are patentable over the prior art. Reconsideration of the instant application and early notice of

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allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,
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Attachments: Yoder, J.I. and Goldsborough, A.P. (1994). *Bio/Technology* 12:263-267.
Lincoln, C. et al.(1994). *The Plant Cell* 6:1859-1876.
Chuck, G. at al.(1996). *The Plant Cell* 8:1277-1289.
Kakimoto, T. (1996). *Science* 274:982-985.

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